



## (WO/2002/082689) FEEDBACK METHOD FOR CONTROLLING A MULTIPLE-INPUT, MULTIPLE-OUTPUT COMMUNICATIONS CHANNEL

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Title: FEEDBACK METHOD FOR CONTROLLING A MULTIPLE-INPUT, MULTIPLE-OUTPUT COMMUNICATIONS CHANNEL

Abstract: The present invention makes it possible to increase a data rate between a transmitter and receiver using a multiple-input, multiple-output radio frequency channel. A multiple-stream, multiple-antenna receiver measures a composite channel between a multiple-antenna transmitter and a multiple-antenna receiver to produce a composite channel measurement. The receiver selects a plurality of antenna array weight sets for use in the multiple-antenna transmitter in response to the composite channel measurement, where each antenna array weight set is associated with one of multiple data streams. Information describing the plurality of antenna array weight sets for use in the multiple-antenna transmitter are then transmitted.

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